CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

June 29, 2000

Mr. Mark Harrer
Southern Energy California
50 California Street
Suite 3220
San Francisco, California 94111

Dear Mr. Harrer:

RE: CONTRA COSTA POWER PLANT UNIT 8 FIRST SET OF DATA REQUESTS

Pursuant to Title 20, California Code of Regulations, section 1716, the California Energy Commission requests the information specified in the enclosed data requests. The information requested is necessary to: 1) more fully understand the project, 2) assess whether the facility will be constructed and operated in compliance with applicable regulations, 3) assess whether the project will result in significant environmental impacts, 4) assess whether the facilities will be constructed and operated in a safe, efficient and reliable manner, and 5) assess potential mitigation measures.

This first set of data requests (#1 - 118) is being made in the areas of air quality, biological resources, cultural resources, public health, transmission system engineering, transmission line safety, visual resources, waste management, and water and soil resources. Written responses to the enclosed data requests are due to the Energy Commission staff on or before July 28, 2000, or at such later date as may be mutually agreed.

If you are unable to provide the information requested, need additional time, or object to providing the requested information, please send a written notice to both Chairman William Keese, Presiding Member of the Committee for the Contra Costa Unit 8 proceeding, and to me, within 15 days of receipt of this notice. The notification must contain the reasons for not providing the information, the need for additional time and the grounds for any objections (see Title 20, California Code of Regulations section 1716 (e)).

If you have any questions regarding the enclosed data requests, please call me at (916) 654-4176.

Sincerely,

Kae C. Lewis
Energy Facility Siting Project Manager

Enclosure

Cc: Proof of Service
Greg Vaughn, Central Valley Regional Water Quality Control Board
Bob Nishimura, Bay Area Air Quality Management District

Technical Area: Air Quality
Author: Tuan Ngo, P.E.

BACKGROUND

The project area is classified as non-attainment for the state 24-hour PM10 air quality standard. As a result, any increase in PM10 emissions from the facility may exacerbate the severity of such violations. Staff will need the estimated emissions from the cooling tower in order to analyze the project's PM10 emission impacts.

DATA REQUEST

1. Please provide the cooling tower emissions estimates, including the method and any assumptions used in the calculations.

BACKGROUND

Table 8.1-22 and page 8.1-23 of the AFC indicate that the project's sulfur dioxide (SO2) emissions are 48.5 tons per year (TPY), which are less than 100 TPY; therefore, the AFC concludes that offsets for SO2 are not required per the Bay Area Air Quality Management District rules and regulations. However, because the project area is non-attainment for PM10 and SO2 is a precursor to PM10, we believe that appropriate mitigation for the project's SO2 emissions may be necessary if the project's SO2 emissions contribute to a significant secondary PM10 impact. An analysis of the project's SO2 emissions formation of secondary PM10 needs to be provided.

DATA REQUEST

2. Please provide an analysis showing the project's SO2 emissions contribution to the formation of secondary PM10 and whether that contribution constitutes a significant air quality impact.

BACKGROUND

In order to complete its Preliminary Staff Assessment (PSA), the applicant needs to submit information about its emission offset proposal before August 29, 2000. That information includes an identification of the emission reductions proposed as offsets, Letters of Intent to purchase proposed offsets, and proposed offset ratios or other adjustments (e.g., RACT adjustments, inter-pollutant offset ratios) to apply to the emission reductions. In order to ensure sufficient progress toward meeting staff's proposed schedule, please provide the following information.

DATA REQUEST

3. Please provide a monthly status report, beginning July 27, 2000, describing the applicant's progress toward obtaining emission offsets. The status report should identify: 1) the status of negotiations (e.g., ongoing, complete, terminated) with offset sources; 2) any new or additional offset sources not identified by the applicant in the

AFC; and 3) an estimated schedule for banking any emission reduction credits, if necessary.

4. By August 29, 2000, please provide a complete offset proposal, including all Letters of Intent or other binding agreements to purchase the emission reductions, and proposed offset ratios or other adjustment factors to apply to the proposed emission reductions.

5. If not already provided, please provide the following for each offset source proposed or under investigation:

   a. Name of the Owner(s) of the emission reduction credits.

   b. Address of Facility(ies) from which the credits will be obtained.

   c. Mailing Address of the Owner(s), and contact person.

   d. Description of the emission reduction credits, which are subject of negotiations, as follows:

      i) pollutant(s) and amounts (tons per year);

      ii) method of emission reduction (e.g., shutdown, process changes, emission control (brief description), fuel switching or augmentation, or other);

      iii) if offsets are to be obtained from sources that have the potential to reduce their emissions, but have not yet done so, please provide source tests or other data to substantiate the identified emission reductions; and

      iv) identification of whether emission reduction credits have been banked pursuant to the applicable district rules. If so, please identify the bank certificate identification number(s). If not, please identify when emission reductions were or will be achieved, and the estimated schedule of when the banking applications were or will be made to the District.

BACKGROUND

A cumulative air quality impact analysis, which assesses the impacts of the project with other nearby projects that have been permitted, but not yet in operation, will need to be provided by the applicant.

DATA REQUEST

6. Please submit a list of the sources to be included in the cumulative air quality impacts analysis. Upon staff's approval of the list, please perform a cumulative air quality impacts analysis $ISCST_3$ as proposed in the AFC.

BACKGROUND

The AFC identifies that a selective catalytic reduction (SCR) system will be utilized to control nitrogen oxide (NOx) emissions to 2.5 part per million (ppm) over a 3-hour averaging time. Staff needs the following information to verify that the SCR system can maintain the NOx emissions at the proposed level.

DATA REQUEST

7. Please provide vendor information related to the control efficiency of the SCR system proposed for the combined cycle scenarios. The information should include the type of catalyst, the bed depth, operating temperature range, scheduled maintenance and catalyst replacement, and discussion of methods to be used to maintain the turbine NOx emissions on a continuous basis. If this information is not available, a manufacturer's performance guarantee can be used as substitute.

BACKGROUND

The Federal Environmental Protection Agency (EPA) has determined that the use of SCONOX technology to control gas turbine's NOx emissions is technologically feasible as Best Available Control Technology (BACT). The AFC, however, does not contain any information or discussion about whether SCONOX has been considered. Because BACT is required for the project according to the District NSR regulation, a discussion of the feasibility of SCONOX is necessary.

DATA REQUEST

8. Please provide a top down BACT analysis, which includes whether the SCONOX system can be utilized for the project.

BACKGROUND

The AFC identifies that a high temperature carbon monoxide (CO) oxidation catalytic system will be employed to reduce CO emissions to 6 ppm and to maintain the turbine volatile organic compounds (VOC) emissions at 60 percent of the uncontrolled level. Staff needs the following information to verify that the CO oxidation catalyst can maintain the CO and VOC emissions at the proposed level.

DATA REQUEST

9. Please provide the CO oxidation catalytic system manufacturer specifications or a manufacturer's performance guarantee.

BACKGROUND

The initial commissioning of the project may experience emissions that exceed the limits that would be required during normal operation. The AFC has not provided an estimate of how

long the initial commission period would be, any excess emissions the project would cause, and whether any mitigation is proposed.

DATA REQUEST

10. Please provide the estimated length of each phase of initial commissioning, a detailed description of each type of commissioning tests, the estimated emissions, and any proposed mitigation.

BACKGROUND

The AFC indicates that power augmentation during the summer months may be used to boost the production of electricity. It is not clear that the estimated emissions and the modeling results provided in the AFC reflect the scenarios where power augmentation is utilized.

DATA REQUEST

11. Please state whether or not steam is used in the power augmentation, and that the emissions estimates and modeling results reflect the expected emissions during power augmentation.

12. If the emissions estimates and modeling results do not reflect the facility emissions during power augmentation period, please provide corrections for these results.

Technical Area: Biological Resources
Author: Dick Anderson

BACKGROUND:

For mitigation measures to be successful, it is important that there be clear and detailed instructions for responsible individuals to carry out. This is best accomplished through production of a plan that covers all aspects of the necessary biological mitigation measures. If conditions change such that a specified mitigation appears to be unworkable, or unsuitable under new unanticipated circumstances, the plan shall allow for modification with the approval of the Energy Commission compliance project manager (CPM) in consultation with appropriate local, state, and federal agencies.

DATA REQUEST

13. Please provide a detailed "Biological Resources Mitigation, Implementation, and Monitoring Plan" (BRMIMP) which the project owner's supervising construction and operating engineers will utilize to carry out biological resources mitigation measures in consultation with CCPP's designated biologist.

14. If a detailed "Biological Resources Mitigation, Implementation, and Monitoring Plan" has not been completed, please provide a draft plan that includes details of proposed and needed mitigation actions encompassing items described below:

    - identification of all sensitive biological resources to be impacted or avoided by project construction and operation;
    - define the roles and responsibilities of the project designated biologist:
    - provisions for including all conditions agreed to for CCPP in the California Department of Fish and Game (CDFG) Endangered Species Memorandum of Understanding/ 2081 permit;
    - provisions for including all conditions set forth for CCPP in the United States Fish and Wildlife Service (USFWS) incidental take permit/biological opinion;
    - provisions for including all Biological Resources mitigation, monitoring and compliance conditions included in the Commission's Final Decision;
    - clear description of mitigation measures required for each sensitive biological resource;
    - clear description of re-vegetation strategies for all disturbances, an example is the oak tree replacement program;
    - monitoring duration for each type of monitoring and a description of monitoring methodologies and frequency;

- performance standards to be used to help decide if/when proposed mitigation is, or is not, successful;
- all remedial measures to be implemented if performance standards are not met;
- all facility closure conditions;
- all post construction clean-up measures;
- time and place be established for administering a worker education program, including what specific subjects will be covered, to what extent written and/or video material will be used, provisions for workers to acknowledge they have been administered the education program and agree to abide by the mitigation measures set forth in the training.

BACKGROUND:

Clarification of information PROVIDED IN THE AFC AND SOME NEW INFORMATION IS NEEDED ON SEVERAL TOPICS IN ORDER TO ESTIMATE project impacts on biological resources and associated measures to mitigate those impacts. The following information is needed by Energy Commission staff and other agencies.

15. Describe measures/products Contra Costa Power Plant Unit 8 Project proponents plan to use to eliminate the chance of electrocution of wildlife species, especially large perching birds, on project facilities, such as at a substation.

16. Do units 6&7 pumps have to run in order for unit 8 to have a cooling water supply? How often (percentage of time) are units 6&7 expected to be down (not producing electricity) on an annual basis? How does unit 8 obtain cooling water if the unit 6&7 pumps are shut off? What percent of the impingement and entrainment effects will result from the operation of unit 8 (for example: when units 6&7 are shut down for maintenance and other reasons)?

17. What is the status of the USFWS incidental take permit and biological opinion, and the CDFG Endangered Species Memorandum of Understanding and 2081 permit for the CCPP unit 8 project? Please provide a discussion regarding the applicant's progress for these permits/agreements, and the name of the representatives that were contacted at each of the agencies.

Technical Area: Cultural Resources
Author: Dorothy Torres

In preparing its independent analysis of the proposed project and the potential for impacts to cultural resources, staff needs to better understand the likelihood that previously unknown cultural resources may be encountered during site demolition and preparation, as well as project construction. Staff also needs more specific information on several aspects of the project-related construction. With this in mind staff offers the following data requests.

BACKGROUND

Section 2.2.14.1 of the AFC addresses site preparation for the project. Up to 64,000 cubic yards of material will be moved to level and raise the height of the site above the flood zone. Elsewhere the AFC indicates that portions of the site are on about six feet of fill. There also is a discussion of excavation for foundations for the CTG, HRSG, STG, transformers and other heavy equipment.

DATA REQUESTS

18. Please provide more specific information on the construction methods or process and the depth of excavation needed for the foundations for these facilities.

    a. Will any of the existing fill need to be removed for disposal off-site? If so, where is the disposal site located?

    b. What type of foundations will be used for each of the project components described as “heavy equipment”, e.g. piles, pedestals, mats, or other?

BACKGROUND

Boring logs performed for the engineering studies in the AFC contain information on the changes in the depth, composition, and color in the soils at certain points beneath the project site. This information can be used to supplement the project description and correlate with the maps for soils, geology, and cultural and paleo resources. Appendix B – 7, “Engineering Drawings”, contains copies of boring logs prepared by Dames & Moore for the Contra Costa Unit 8 project. However, there is no key map to indicate where within the proposed project site, the boring sites are located.

DATA REQUEST

19. Please provide a key map of the project site showing the location of the borings presented as Figures B-1 through B-5 in Appendix B – 7 of the AFC.

BACKGROUND

The map included in the AFC as Figure 8.15-1, “Regional Geology”, shows the estimated shoreline in the 1850s. The discussion in the Phase 1 Study conducted in 1997 by Camp Dresser and McKee (CDM) for PGandE, discusses the presence of a place named “Marsh

Landing" shown on a 1918 map. The AFC speaks of this landing as possibly located approximately one-quarter mile easterly of the project site, near an abutment for the state highway 160 bridge. Staff needs to evaluate the potential for future project-related activities (such as modifications to the cooling water intake and water disposal outfall systems) to affect the Marsh Landing site.

DATA REQUESTS

20. Please provide a copy of the relevant portion of the 1918 map for comparison with the map showing the approximate shoreline in the 1850s.

21. Please discuss the potential that the existing cooling water intake and outfall systems for Units 6 and 7 may need to be rebuilt or modified to meet NPDES permit conditions for the new Unit 8.

BACKGROUND

Section 8.3.1.5.1 of the AFC discusses archival research conducted prior to preparation of the AFC. One of the documents reviewed was the Phase 1 Environmental Study prepared in 1997 by CDM for PGandE. While this study contained a short discussion of the history of the Contra Costa site and the development of the power plant units, it did not address cultural resources. The second document referred to in the AFC is the EIR prepared in 1998 by ESA (Environmental Science Associates) for the PGandE's sale of the Contra Costa Power Plant and other plants in its system. Portions of the existing Contra Costa power plant were built in the early 1950s which makes them nearly fifty years old – the threshold for structures to be of potential historic interest. The AFC states that the EIR suggests that none of these older facilities appear to be eligible for listing on the National Register of Historic Places. This may not preclude them from being of potential local or regional interest. Staff would like to review the discussion of these older facilities presented in the EIR.

DATA REQUEST

22. Please provide staff with a copy of those portions of the 1998 EIR for the PGandE sale of the Contra Costa Power Plant pertinent to cultural and historical resources.

Technical Area: Public Health
Author: Mike Ringer

BACKGROUND

The fire protection system will include a diesel engine-driven fire pump (AFC p. 2-44), that will require periodic testing and will be a source of diesel exhaust emissions. The Bay Area Air Quality Management District has recently published its Risk Management Policy for Diesel Engines (February 3, 2000) which establishes criteria for approval of permits. Staff must ensure that the diesel fire pump engine complies with these criteria as part of its LORS analysis. In addition, the California Air Resources Board recently issued proposed Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines (February 9, 2000) to assist in making risk management decisions. Although CARB has not approved an acute noncancer REL, one may be estimated for the purposes of performing a screening health risk assessment by multiplying the chronic REL by a factor of ten, yielding an acute REL of 50 $\mu g/m^3$.

DATA REQUEST

23. Please provide a worst-case health risk assessment (inhalation pathway) for the diesel fire pump, including cancer risk, and noncancer chronic and acute hazard indices and a description of the locations of the chronic and acute maximum impacts. Please include a description of all parameters of interest for the diesel fire pump, such as PM emission rate, applicable control technologies, planned hours of operation, etc.

BACKGROUND

Diesel exhaust has been classified as a Toxic Air Contaminant by the California Air Resources Board (CARB), and the Board has approved a chronic noncancer reference exposure level (REL) of 5 $\mu g/m^3$ for diesel particulate matter. Thus, diesel exhaust from construction equipment emissions may pose potential public health impacts which must be analyzed. Because of the relatively short duration of construction, acute health impacts should be the focus of the health risk assessment. (Although CARB has not approved an acute noncancer REL, one may be estimated for the purposes of performing a screening health risk assessment by multiplying the chronic REL by a factor of ten, yielding an acute REL of 50 $\mu g/m^3$.)

DATA REQUEST

24. Please provide an estimate of maximum one-hour PM10 impacts from diesel-powered construction equipment exhaust and the location of the maximum impact.

Technical Area: Transmission Line Safety and Nuisance
Author: Obed Odoemelam

BACKGROUND

The applicant has noted that all transmission facilities will be located within the boundary of the Contra Costa Power Plant site but did not specify the length of the interconnection to the PG&E transmission system.

DATA REQUEST

25. The applicant is requested to specify the length of the interconnecting line to facilitate staff's assessment of potential worker exposure to the line's electric and magnetic field as noted by the applicant on page 2-52 of the Application for Certification.

Technical Area: Transmission System Engineering
Author: Al McCuen/Richard Minetto

BACKGROUND:

Staff needs a complete interconnection study to analyze the system reliability impacts due to interconnection of the project, and to identify the downstream facilities necessary to support interconnection of the project. Project interconnection must comply with North American Electric Reliability Council (NERC) Planning Standards, Western Systems Coordinating Council (WSCC) Reliability Criteria, and the California Independent System Operator (Cal-ISO) Reliability Criteria. While a preliminary interconnection study was provided, the California Energy Commission staff needs the formal detailed facility study (DFS) performed by PG&E in order to asses the transmission impacts.

DATA REQUEST:

26. Please provide the following data from the Participating Transmission Owner's (PTO) System Impact Study and/or Facility Study for the project.

I. Load flow analysis.

a) Include the information necessary to identify all planning and/or reliability criteria violations on the transmission system due to addition of the project.
b) Tabulation of criteria violation cases, i.e. thermal loading or voltage deviation limits exceeded, with corresponding single line drawings as an appendix is the preferred reporting format.
c) Scope of contingency cases (N-1, N-2) tested must be adequate to identify all violations to applicable reliability criteria. All contingency cases that would trigger corrective action by the PTO, or any other impacted transmission owner, need to be identified.

II. Dynamic stability analysis.

a) Include the information necessary to identify all planning and/or reliability criteria violations on the transmission system due to addition of the project.
b) Tabulation of results, i.e. system damped or undamped, for the tested cases with corresponding stability plots as an appendix is the preferred reporting format.
c) Scope of contingency cases (N-1, N-2) tested must be adequate to illustrate system performance relative to the standards called for in the applicable reliability criteria. At minimum, all 'critical' contingency cases and outage type (3 phase, single line to ground, etc) as identified by the PTO should be tested.

III. Post-transient voltage stability analysis.

1. Include the information necessary to identify all planning and/or reliability criteria violations on the transmission system due to addition of the project.
2. Tabulation of results, i.e. extent of maximum voltage deviation, for the tested cases is the preferred reporting format.
3. Scope of contingency cases (N-1, N-2) tested must be adequate to illustrate system performance relative to the standards called for in the applicable reliability criteria. At minimum, all 'critical' contingency cases as identified by the PTO should be tested.

4. System short circuit fault duty impact

a) Include the information necessary to determine all cases where substation equipment fault duty interrupting ratings are exceeded with addition of the project.
b) Tabulation of the results, i.e. substation fault duty before and after the project relative to corresponding equipment ratings, is the preferred reporting format.
c) Number of substations tested is at the discretion of the PTO, but should be adequate to identify all cases in which existing substation equipment will be replaced due to the project's impact to transmission system's available short circuit 3-phase, or single-phase-to-ground, fault duty.

V. Describe all equipment and system modifications required for interconnection of the project:

a) Equipment which brings the project's electrical output from the generator(s) to the first point of interconnection with the integrated transmission system.
b) Include physical dimension and electrical characteristics (capacity is critical) data.
c) Impacted downstream facilities as identified in questions 1-4 above.
d) Identify the mitigation options for each violation case, and identify the PTO's and Applicant's preferred option when multiple mitigation options are available.

Technical Area: Visual Resources
Author: Gary Walker

BACKGROUND

The revised Visual Resources section of the AFC (p.8.11-2) states that "Vapor plumes from a number of the industrial facilities in the region are regularly visible under certain meteorological conditions." The document (p.8.11-7) specifically discusses visual features in the area beyond ½ mile to the south of the proposed project site. The AFC states that "the industrial uses include an existing power plant, which has cooling towers and associated vapor plumes." The document also discusses visual features in the area to the west of the proposed project site. The AFC states that the area "is characterized by heavy industry, consisting of water tanks, storage areas, waste ponds, etc….Vapor plumes and lights are visible from some of these facilities."

DATA REQUEST

27. Regarding vapor plumes from existing industrial facilities in the region:

    a. Please show on a map the specific locations of the sources of vapor plumes from existing facilities that are visible from each of the visually sensitive areas and KOPs identified in the revised Visual Resources section of the AFC.

    b. Please estimate the number of vapor plumes from existing facilities that are visible from each of the visually sensitive areas and key observation points (KOPs) identified in the revised Visual Resources section of the AFC.

    c. Please estimate the size of vapor plumes from existing facilities relative to the calculated size of the vapor plumes for the proposed project. How many would be larger? Similar in size? Smaller?

    d. Please identify on the map the existing power plant south of the proposed power plant site.

    e. Please specify which, if any, of the identified sensitive view areas have this existing power plant in their view of the proposed power plant site.

    f. Please provide the name of the existing power plant.

    g. Please specify the generating capacity of the existing power plant

    h. Please estimate the size of the cooling tower vapor plumes of the existing power plant compared to the calculated size of the vapor plumes of the proposed project.

    i. Please identify on the map any existing power plants to the west of the proposed power plant site that cause vapor plumes and would be visible from any of the identified sensitive view areas in views toward the proposed power plant site.

j. Please provide the names of any such power plants.

k. Please estimate the size of the vapor plumes of any such power plants compared to the calculated size of the vapor plumes of the proposed project.

BACKGROUND

The revised Visual Resources section of the AFC (p.8.11-2) states that "A computer viewshed analysis was conducted (using a 90-meter grid cell resolution, generated from 1:250,000 Digital Elevation Model (DEM) data from the USGS) to map the boundaries of the SOI [sphere of influence] within the 5-mile limit."

DATA REQUEST

28. Why was 1:250,000 data used rather than more detailed data, such as 1:24,000?

29. Is use of more detailed data feasible?

30. Would use of more detailed data provide a noticeably different SOI?

31. Why was a resolution of 90-meter grid cells used instead of a higher resolution?

32. Is use of a higher resolution feasible?

33. Would use of a higher resolution provide a noticeably different SOI?

BACKGROUND

The revised Visual Resources section of the AFC (pp.8.11-7 through 8.11-14) describes visually sensitive areas and related KOPs. Some of these areas (related to KOPs #2, 3, and 5) are identified by reference to local streets.

DATA REQUEST

34. Please provide five sets of Figure 8.11-14 at 11' x 17" map at a scale of 1:12,000 revised to show the approximate boundaries of each of the sensitive view areas, and with names of the streets and highways related to each of the KOPs.

BACKGROUND

The AFC (Replacement Page p.8,.11-8, footnote 1) describes the photographs and simulations for each of the KOPs. However, the description does not explain whether the color photocopies in the AFC of the photographs and simulations are at life-size scale.

DATA REQUEST

35. Please explain whether the photocopies in the AFC of the photographs and simulations of the proposed project from each of the KOPs are at a life-size scale, when viewed from a normal reading distance of approximately 18 inches. If the photocopies are not at a life-size scale, please provide revised photocopies at a life-size scale.

BACKGROUND

Staff needs information to independently verify the accuracy of the visual simulations provided in the AFC.

DATA REQUEST

36. Please provide sufficient information to allow an independent analyst to verify the accuracy of the visual simulations provided in the AFC. Please specify all assumptions, techniques, models, software programs, and reference points and features used to prepare the simulations.

BACKGROUND

The revised Visual Resources section of the AFC (p.8.11-9) states that "Middleground views (3/4 to 1 mile) of the proposed project area along East 18th Street would not be dominant…."

DATA REQUEST

37. Please explain whether the assessment that middleground views would not be dominant is based on the view distance or on some other factor or combination of factors.

BACKGROUND

In the revised Visual Resources section of the AFC, duration of view is not included as a factor in assessing viewer sensitivity (p.8.11-4), and it is included in assessing visual impact severity (p.8.11-17).

DATA REQUEST

38. The revised Visual Resources section of the AFC (p.8.11-9) addresses duration of view in regard to viewer sensitivity for views along East 18th Street (represented by KOP #4).

    a. Please explain whether duration of view was used as a factor in assessing viewer sensitivity for East 18th Street.

    b. If so, please resolve the apparent discrepancy between its use and the methodology for assessing viewer sensitivity.

BACKGROUND

The revised Visual Resources section of the AFC does not specifically address travelers on Wilbur Avenue, the closest public road south of the proposed project site.

DATA REQUEST

39. Please discuss the visual impacts of the project to travelers on Wilbur Avenue.

BACKGROUND

The revised Visual Resources section of the AFC (p.8.11-10) addresses residences in the marinas/harbors sensitive view area (represented by KOP #4). The discussion mentions five residences located adjacent to the east/southeast side of the proposed project. The discussion later mentions residences located amid the industrial use areas south of the marinas.

DATA REQUEST

40. Please clarify whether the residences are the same group or different groups.

BACKGROUND

The Visual Resources section of the AFC (pp.8.11-12 to 13) states that there are three distinct views of the proposed project area along State Route 160. In regard to the first view, the AFC states that

> "This middleground view (1 ½ miles) of the proposed project area across relatively flat agricultural land is partially screened due to the levees and mature vegetation along the shoreline of the San Joaquin River. The existing stacks and generation facilities are dominant features along the skyline to the south. Also visible are the distant hills on the south side of the City of Antioch. These views from SR 160 are considered to be of high visual quality, due to the intact rural setting, the distinctive profile of the Antioch bridge, and the views of the river."

DATA REQUEST

41. Given that "the existing stacks and generation facilities are dominant features along the skyline to the south," should the assessment of an "intact rural setting" be revised? If so, please provide such a revision. If not, please explain why not.

42. If the description of the setting should be revised, should the assessment of visual quality be revised from "high"? If so, please provide such a revision. If not, please explain why not.

BACKGROUND

In regard to the sensitive view area of the San Joaquin River and surrounding rural/wetland areas, the revised Visual Resources section of the AFC (p.8.11-13) states that the existing power plant and cooling/exhaust stack are closer to the river than the proposed project. However, from New Figure 8.11-4 the proposed project site appears to be approximately the same distance from the river as the existing facilities.

DATA REQUEST

43. Please resolve this apparent discrepancy.

BACKGROUND

The revised Visual Resources section of the AFC (p.8.11-13) states that "Views of the proposed project for approaching users traveling eastward along the [San Joaquin] river, would be completely screened by the existing power plant."

DATA REQUEST

44. Please estimate the length of the view area along the river where travelers would have views of the proposed project that would not be screened by the existing power plant or the bridge.

BACKGROUND

The revised Visual Resources section of the AFC (p.8.11-17) specifies "project exposure" as one of the viewing variables evaluated to determine a visual modification level.

DATA REQUEST

45. Please define the term "project exposure," specifying any subelements.

BACKGROUND

The revised Visual Resources section of the AFC (p.8.11-17) specifies "relationship of adjacent landscapes" as one of the viewing variables evaluated to determine a visual modification level.

DATA REQUEST

46. Please explain the use of "relationship to adjacent landscapes" as a viewing variable to determine a visual modification level.

BACKGROUND

The revised Visual Resources section of the AFC (p.8.11-18) states that "assessment of the level of visual modification includes all visual effects typically seen during daylight conditions, including visible vapor plumes." However, vapor plumes can also be quite visible at night if they are illuminated by existing or proposed lighting. The section (p.8.11-18) also lists night-lighting effects as one of the influences on visual impact severity.

DATA REQUEST

47. Please describe the existing lighting level in the vicinity of the proposed project site.

48. Please describe the level of lighting for the proposed project.

49. The revised Visual Resources section of the AFC (pp.8.11-22 through 8.11-28) discusses the lighting impacts of the proposed project for each visually sensitive area, represented by KOPs #1 through 8.

    a. Please clarify whether the evaluation included consideration of nighttime illumination of the vapor plumes of the proposed and existing facilities.

b. If illumination of plumes was not considered, please modify the analysis to do so.

BACKGROUND

In regard to visual simulations, the revised Visual Resources section of the AFC (p.8.11-19) states that "new landscape plantings are shown with an assumed height of 15 to 25 feet (mature growth)."

DATA REQUEST

50. Please estimate the time required for the plantings to reach maturity.

51. The new plantings appear to be the most visible in the simulations from KOPs #4 and 8 (New Figures 8.11-12 and 8.11-20). From either KOP #4 or 8 most of the project elements would not be screened by the plantings, even at maturity.

    a. Please explain why plantings with taller heights at mature growth were not used.

    b. Please discuss the feasibility, desirability, and relative advantages and disadvantages of using plantings with taller heights at mature growth.

    c. Please estimate the tallest plantings at mature growth that could feasibly be used.

    d. Please specify the potential species that could attain such heights.

BACKGROUND

One category of significant visual impacts that the revised Visual Resources section of the AFC (p.8.11-20) includes is impacts that result in "a perceptible long-term reduction of visual quality occurring within moderately to highly sensitive public views."

DATA REQUEST

52. Please clarify whether residences and other privately owned properties are included in the definition of the term "public views" as used in this methodology.

BACKGROUND

The revised Visual Resources section of the AFC (p.8.11-20) defines "long-term" as lasting longer than one year. The section (p.8.11-20) also states that "Short-term aspects (e.g. construction) of the project are not considered in detail here."

DATA REQUEST

53. Project construction is scheduled to last for 22 months (AFC p.1-3). Given the definition of long-term as lasting longer than one year, should construction aspects be considered long-term? If so, please revise the Visual Resources section as appropriate.

BACKGROUND

The revised Visual Resources section of the AFC (p.8.11-21) lists as one of the most visible features of the proposed project "the single tubular steel 230kV transmission line structure (95 feet high)." However, AFC Figure 2.2 shows more than one transmission pole.

DATA REQUEST

54. Please resolve this apparent discrepancy.

BACKGROUND

The revised Visual Resources section of the AFC (p.8.11-21) describes existing vegetation along the eastern property boundary and states that this vegetation "currently provides a visual buffer between the proposed project and the adjacent marinas and residences. However, it is expected that all of this vegetation may have to be removed."

DATA REQUEST

55. Please provide a copy or high-quality photocopy of an aerial photo with enough detail to clearly show the plot plan for the proposed project and the existing vegetation along the eastern property boundary. Please show the scale of the submittal.

56. Please specify the heights of the existing vegetation along the eastern property boundary.

57. Please explain why any or all of the existing vegetation along the eastern property boundary may have to be removed.

58. Please address the potential for the project to be redesigned to avoid removal of the existing vegetation along the eastern property boundary.

BACKGROUND

The revised Visual Resources section of the AFC (p.8.11-21) states that "the power plant facilities will consist of low-reflection metal surfaces with neutral colors such as tans, browns, and related earthtones."

DATA REQUEST

59. Considering that the proposed project is located adjacent to the San Joaquin River, please evaluate the advantages, disadvantages, and relative merit of using colors that blend with the color of the water.

BACKGROUND

The revised Visual Resources section of the AFC (p.8.11-22) states that

> "Short-term high impacts resulting from construction are likely to result to the residences and marinas located to the east of the proposed project. These short-term impacts would be due to the activity of construction equipment (e.g., cranes, scaffolding, temporary lighting, etc.), and dust."

DATA REQUEST

60. Please discuss potential mitigation measures to minimize these impacts.

BACKGROUND

The AFC (p.8.11-23) in regard to the area represented by KOP #2 states that "the greatest visual contrasts result from the scale and uniformity of the STG building and the contrast of the vapor plumes."

DATA REQUEST

61. Please provide five sets of high quality color photocopies at life-size scale of a visual simulation from KOP #2 showing the project with a cooling tower plume height above ground of 150 meters (492 feet).

BACKGROUND

Staff is concerned about the visual impacts of the project during nighttime hours from the view area represented by KOP #2, particularly because of potential illumination of the cooling tower plume in a view that now contains no cooling tower plumes.

DATA REQUEST

62. Please provide five sets of 11' x 17" high-quality color photocopies of a photograph at life-size scale of the existing view toward the proposed site from KOP #2 at night.

63. Please provide five sets of 11" x 17" high-quality color photocopies of a visual simulation at life-size scale of the proposed project from KOP #2 at night, including proposed lighting.

64. Please provide five sets of 11' x 17" high-quality color photocopies of a visual simulation at life-size scale of the proposed project from KOP #2 at night, including proposed lighting and a cooling tower plume height above ground of 150 meters (492 feet).

BACKGROUND

The AFC (p.8.11-24) addresses the visual impacts of the project in the area represented by KOP #3. However, the discussion does not specify the visual modification level that the project would cause.

DATA REQUEST

65. Please specify the visual modification level that the project would cause in the area represented by KOP #3.

BACKGROUND

The AFC (p.8.11-24) in regard to the area represented by KOP #4 addresses the visual impacts of "the proposed STG building, exhaust and cooling stacks, and portions of vapor plumes when visible."

DATA REQUEST

66. Please explain why the AFC addresses only portions of the vapor plumes rather than the entire plumes.

BACKGROUND

The AFC (p.8.11-24) addresses the visual impacts of the project on residences and "potentially some nearby live-aboard boats" in the vicinity of KOP #4.

DATA REQUEST

67. Please estimate the number of residences located in live-aboard boats in the vicinity of KOP #4 that would experience visual impacts due to the project.

BACKGROUND

The AFC (pp.8.11-24 to 8.11-25) states in regard to visual impacts in the area represented by KOP #4 that "the greatest visual contrasts result from the scale and uniform mass of the STG building, visual contrasts of vapor plumes, skylining transmission lines, and loss of existing oak trees" and that "the existing oak trees would add to the visual impact of the development, greatly reducing screening of lower level structures."

DATA REQUEST

68. Please provide five sets of 11" x 17" high quality color photocopies at life-size scale of a visual simulation of the proposed project from KOP #4 with the existing oak trees removed and with a cooling tower plume height above ground of 100 meters (328 feet). (This height was selected because it is a break point in the categories of the modeling output and because the next higher category would exceed the border of the photograph.)

BACKGROUND

Staff is concerned about the visual impacts of the project during nighttime hours from the view area represented by KOP #4, particularly because of potential illumination of the cooling tower plume in a view that now contains no cooling tower plume.

DATA REQUEST

69. Please provide five sets of 11" x 17" high quality color photocopies at life-size scale of the existing view toward the proposed site from KOP #4 at night.

70. Please provide five sets of 11' x 17" high-quality color photocopies at life-size scale of a visual simulation of the proposed project from KOP #4 at night, including proposed lighting and a cooling tower plume height above ground of 150 meters (492 feet).

BACKGROUND

The AFC (p.8.11-26) in regard to State Route 160/Antioch Bridge that "the greatest visual contrasts result from the scale and uniformity of the STG building and contrasts of vapor plumes."

DATA REQUEST

71. Please provide five sets of 11" x 17" high quality color photocopies at life-size scale of a visual simulation of the proposed project from KOP #7 on a clear morning with a cooling tower plume height above ground of 150 meters (492 feet).

BACKGROUND

Staff is concerned about the visual impacts of the project during nighttime hours from the view area represented by KOP #7.

DATA REQUEST

72. Please provide five sets of high-quality color photocopies at life-size scale of the existing view toward the proposed site from KOP #7 at night.

73. Please provide five sets of high-quality color photocopies at life-size scale of a visual simulation of the proposed project from KOP #7 at night, including proposed lighting and a cooling tower plume height above ground of 150 meters (492 feet).

BACKGROUND

The AFC (replacement page 8.11-27) states in regard to the area represented by KOP #8 that "the proposed STG building, exhaust and cooling stacks, and portions of vapor plumes when visible would be very noticeable from this area, as they are skylined when viewed from the river." The AFC goes on to state that "modifications would be co-dominant with the existing generation facilities and therefore would result in high impacts when viewed directly from the north of the proposed project. Additional lights visible from the river would be noticeable, contributing to the magnitude of lighting given off by the existing lights." The AFC then states that "final impacts on views from the river resulting from the proposed project are not expected to be significant, due to the recommended mitigation measures of design treatment on main visible surfaces, and shoreline enhancement/planting along the riverbank. These mitigations should effectively reduce some of the visual contrasts resulting from the proposed project."

DATA REQUEST

74. Given the AFC statement that high impacts on views from the river would result from the co-dominance of the proposed modifications, please explain how design treatment and shoreline enhancement/planting would substantially reduce co-dominance.

75. Please provide five sets of 11" x 17" high quality color photocopies at life-size scale of a visual simulation of the proposed project from KOP #8 on a clear morning with a cooling tower plume height above ground of 150 meters (492 feet). (The existing photo from KOP 8 is not appropriate for this purpose because light colored clouds prominent in the view would minimize the effect of the plume.)

BACKGROUND

Proposed specific mitigation measure VIS-3 (AFC Replacement Page 8.11-28) states that

> "Lighting will be limited to areas required by regulations, operation, and safety. When possible, lighting will be directed and/or shielded to reduce glare towards sensitive viewers."

DATA REQUEST

76. Please explain whether the applicant will agree to use lighting controls such as switches and motion sensors to further reduce lighting impacts by minimizing lighting of areas that do not require constant lighting during nighttime hours.

BACKGROUND

Proposed specific mitigation measure VIS-4 (AFC Replacement Page 8.11-28) states that

> "Landscaping such as trees or berms will be used along the north, east, and south sides of the proposed project to partially screen views of the plant from sensitive view locations. Recommended vegetation species should include replacement native oaks, and other native (or, if required, hardy exotic) evergreens for use in screening."

Proposed specific mitigation measure VIS-6 (AFC Replacement Page 8.11-29) states that

> "Tall growing trees will be established along the waterfront to provide some filtering of views onshore, and the shoreline character seen from boats will be enhanced through landscape treatment, clean-up, and design."

The AFC (Replacement Page 8.11-29) also states that

> "The simulations shown for each of the KOPs include the generic mitigations VIS-1, VIS-2, and specific mitigations VIS-4 and VIS-6. New landscape plantings are shown at an assumed height of 15 and 25 feet (mature growth). The Applicant would plant 24- to 36- inch box trees."

DATA REQUEST

77. In regard to specific mitigation measure VIS-4, please specify whether the applicant will agree to use both trees and berms.

78. Please specify the length of time required for the trees that would be provided as mitigation to reach the size depicted in the view from KOP #4 in AFC Figure 8.11-12.

79. Please describe the additional screening that would be provided from KOP #4 by using tall growing species, as is proposed along the waterfront in specific mitigation measure VIS-6.

80. Please provide five sets of 11" x 17" high quality color photocopies at life-size scale of visual simulations of the proposed project from KOP #4 showing the use of tall growing species:

    a. at five years of age and

    b. at maximum height.

81. Please specify the height assumed in the simulation at five years of age.

82. Please specify the height assumed in the simulation at maximum height, and estimate the age at which maximum height is reached.

83. Please clarify the apparent discrepancy between specific mitigation measure VIS-6 that would provide tall growing trees along the waterfront, and the statement that new landscape plantings would be 15 to 25 feet in height at maturity.

84. The trees shown in the visual simulation from the river (New Figure 8.11-20) do not appear to be tall growing, as specified in specific mitigation measure VIS-6. Please provide five sets of high quality color photocopies of simulations of the proposed project from KOP #8 showing the use of tall growing trees:

    a. at five years of age, and

    b. at maximum height.

85. Please specify the height assumed in the simulation at five years of age.

86. Please specify the height assumed in the simulation at maximum height, and estimate the age at which maximum height is reached.

BACKGROUND

The AFC (Replacement Page 8.11-29) states that "ongoing design studies are being conducted to refine other mitigation measures. Because the measures addressed are VIS-1, 2, 4, and 6, the reference is to measures VIS-3, 5, and 7.

DATA REQUEST

87. Please describe the ongoing design studies.

88. Please explain whether the design studies are still ongoing or whether they have been completed.

89. Please describe any changes to the proposed project that have been made subsequent to the preparation of the AFC as a result of the design studies.

90. Please describe any changes to the proposed project that may be made as a result of the design studies.

BACKGROUND

Proposed specific mitigation measure VIS-5 (AFC Replacement Page 8.11-28) states that

> "Surface design treatment will be provided for the STG building and facades of the cooling towers, so as to reduce the apparent scale and uniformity. This will involve some architectural detailing to break up the façade surface, and some kind of color scheme using a somewhat contrasting combination of appropriate colors to break up the monolithic appearance."

The visual simulations of the proposed project do not appear to include architectural detailing.

DATA REQUEST

91. Please explain whether the ongoing design studies have progressed sufficiently to permit creation of a simulation conceptually showing the effect of architectural detailing and a combination of colors. If so, please provide five sets of 11' x 17" high quality life size color photocopies of such a visual simulation from KOP #4 (the closest KOP to the project site). If not, please estimate when the information can be provided.

BACKGROUND

Proposed specific mitigation measure VIS-7 (AFC Replacement Page 8.11-29) states that

> "Trees will be planted off-site to filter and mitigate views toward the proposed project from the San Joaquin Yacht Harbor and other identified sensitive viewing locations within the residences and marina area. Species should include replacement native oaks and other native evergreens for use in screening."

DATA REQUEST

92. Please discuss the feasibility of planting and maintaining off-site trees.

93. Please explain whether the ongoing design studies have progressed sufficiently to permit creation of a map that shows the proposed location(s) for the off-site trees.

    a. If so, please:

        i) Provide five copies of a map that shows the proposed location(s) for the off-site trees;

        ii) Provide five sets of 11' x 17" high quality color photocopies of visual simulations from KOP #1 showing the off-site trees:

            (1) at five years of age and

            (2) at maximum height.

        iii) Specify the height of the trees used in the simulations at five years of age.

        iv) Specify the maximum height assumed; and

        v) Specify the age assumed for maximum height.

    b. If the studies have not progressed sufficiently to permit submittal of this information, please estimate when the information can be provided.

BACKGROUND

The AFC (pp.8.11-30 and 8.11-31) lists three policies in the Contra Costa General Plan regarding setbacks and landscaping. The AFC (p.8.11-31) goes on to state that the proposed project would be in compliance with these policies with implementation of the proposed mitigation measures. However, none of the proposed mitigation measures address setbacks.

DATA REQUEST

94. Please explain whether and if so how the proposed project would comply with the Contra Costa General Plan policies regarding setbacks.

BACKGROUND

Table 8.11-1 in the initial AFC (p.8.11-30) included a regional policy of the Contra Costa General Plan "to preserve scenic qualities along the San Joaquin River/Delta Shoreline," the applicability of which the table described as "preservation of views of the shoreline and hills to the south from the San Joaquin River."

DATA REQUEST

95. Please explain why the regional policy of the Contra Costa General Plan listed in Table 8.11-1 in the initial AFC (p.8.11-30 "to preserve scenic qualities along the San Joaquin River/Delta Shoreline" was deleted from Table 8.11-1 on Replacement Page 8.11-34, dated April 13, 2000.

BACKGROUND

The AFC (p.7.5-11) discusses visible vapor plumes from the proposed cooling tower. However, the AFC does not provide quantified calculations of the size, duration and frequency of the plumes.

DATA REQUEST

96. Please provide the following information regarding the cooling tower vapor plumes:

    a. Quantified estimates of the expected maximum and average height and width.

    b. The data, assumptions, and calculations used to derive these estimates, including the model used.

    c. Quantified estimates of the expected frequency of occurrence and duration, specifying:

        i) the number of hours that the plumes will be visible, for each hour of the day per year;

        ii) the total number of hours per year that the plumes will be visible;

        iii) the percentage of the total number of hours per year that the plumes will be visible;

        iv) the number of daylight hours per year that the plumes will be visible;

        v) the percentage of daylight hours per year that the plumes will be visible; and

        vi) the data, assumptions, and calculations used to derive these estimates, including the model used.

d. Please calculate the values requested in “a” and “c” above to eliminate periods when fog occurs.

e. Please calculate the values requested in “a” and “c” above to eliminate periods when visibility will be reduced to less then specified distances (such as less than one mile and less than three miles).

BACKGROUND

The AFC does not address vapor plumes from the HRSG stacks.

DATA REQUEST

97. Please provide the following information regarding the HRSG stack plumes. (Please specify whether the calculations are for each stack or for both stacks. If the calculations are for each stack, please estimate the combined effect for both stacks).

a. Quantified estimates of the expected maximum and average height and width.

b. The data, assumptions, and calculations used to derive these estimates, including the model used.

c. Quantified estimates of the expected frequency of occurrence and duration, specifying:

i) the number of hours that the plumes will be visible, for each hour of the day per year;

ii) the total number of hours per year that the plumes will be visible;

iii) the percentage of the total number of hours per year that the plumes will be visible;

iv) the number of daylight hours per year that the plumes will be visible;

v) the percentage of daylight hours per year that the plumes will be visible; and

vi) the data, assumptions, and calculations used to derive these estimates, including the model used.

d. Please calculate the values requested in “a” and “c” above to eliminate periods when fog occurs.

e. Please calculate the values requested in “a” and “c” above to eliminate periods when visibility will be reduced to less then specified distances (such as less than one mile and less than three miles).

Technical Area: Waste Management
Author: Mike Ringer

BACKGROUND

AFC p. 8.13-9 states that the facility will apply to the California Environmental Protection Agency for an identification number as a generator of hazardous waste. Page 5-6 of the Phase I Environmental Site Assessment lists an EPA hazardous waste generator ID number for the plant.

DATA REQUEST

98. Please indicate if the existing Contra Costa Power Plant EPA identification number has been transferred to Southern Energy, or when a new number will be obtained.

BACKGROUND

AFC p. 2-38 states that wastewater resulting from compressor washing and plant maintenance cycles that may contain concentrations of heavy metals will be collected and disposed offsite. AFC replacement p. 8.14-8 states that boiler wastewater will be treated by the existing CCPP wastewater treatment system.

DATA REQUEST

99. Please clarify if the two statements above are correct, i.e., that some wastewaters will be disposed offsite while boiler washwaters will be treated onsite. If both statements are correct, identify which wastewater streams will be disposed offsite.

BACKGROUND

Section 2.2.14.1 states that approximately 64,000 yards of soil from the existing fill pile will be used to prepare the site. In their comment letter (from Barbara Cook, 3/14/2000), the Department of Toxic Substances Control (DTSC) assumes that this material is the stored clean fill material located where the steam turbine building and cooling tower will be located, but notes that the original source of the fill pile was not identified. (See Attachment A). DTSC states that soil sampling of the material may be necessary to determine its suitability for use as fill material.

DATA REQUEST

100. Please provide information such as sampling data or the original source of the material which shows that the stored material onsite is suitable for use as fill.

BACKGROUND

Concrete slabs associated with wood storage buildings will be removed during site preparation (AFC section 2.2.14.1). DTSC suggests that, depending on the former uses of the buildings, surface sampling of the concrete may be necessary to determine the appropriate disposal method, and that soil sampling may be necessary depending on the conditions encountered when the slabs are removed.

DATA REQUEST

101. Please list the past uses, if known, of the wood storage buildings, and indicate if there may be any issues associated with potential contamination of the slabs. Please discuss types of conditions which could indicate the need for sampling the concrete or underlying soil for hazardous contaminants, such as staining or types of past uses. Please estimate the amount of concrete which may be disposed of from these buildings.

BACKGROUND

Section 8.13.2.1.1 of the Application states that contaminated soil will likely be excavated during construction.

DATA REQUEST

102. Please estimate the quantity of contaminated soil expected to be excavated and the contaminants that are anticipated. Please provide a soil management plan that describes the procedures that will be followed during excavation and construction activities to ensure that contaminated soil will be identified and properly managed.

BACKGROUND

In their review of the Application, DTSC comments that it does not appear that the sand blast building and surrounding area was adequately investigated to determine if the area is of concern, and that additional sampling should be proposed for this area prior to construction.

DATA REQUEST

103. Please provide any further information about the sand blast building that may not have been included in past Environmental Site Assessments and submit a proposal for sampling to adequately characterize the area and its potential to impact construction of the Unit 8 project.

Technical Area: Water and Soil Resources
Author: Richard Sapudar

BACKGROUND

The discussion of alternative cooling options does not provide sufficient detail to fully evaluate the feasibility of applying available cooling options to the proposed project. A more detailed cost/resource consumption analysis of alternative cooling technologies is necessary for evaluation of alternatives and mitigation options for both water use and wastewater discharges. State Water Resources Control Board Policy 75-58 identifies a need for an analysis of cost and water use associated with alternative cooling technologies for power plants.

DATA REQUEST

104. Provide a detailed discussion of capital and operating costs, effects on plant performance to include power output, fuel consumption, and emissions, along with the principal design specifications of dry cooling and wet-dry hybrid systems incorporated into the Blythe Energy Project. Include the following:

A. Provide an analysis for the cost and water use associated with the proposed Blythe Energy Project. The analysis should include a table which compares wet, wet/dry, and dry cooling technologies, along with the estimated capital and operating costs, and the anticipated water demand.

B. Provide the assumptions and calculations underpinning the capital costs, discussions of whether labor and financing costs are included in the estimates, and the performance levels for the technologies specified.

C. Provide energy balances for the combined cycles at 50 percent, 75 percent, 100 percent and peak loads, at 47°F (average low temperature), 73°F (average high temperature), and at 91°F (peak temperature). Include any effects of inlet cooling and power augmentation.

D. Provide the quantities of water used and wastewater discharged, and estimates of water, treatment, clean-up, and any other chemicals required for the various configurations

DATA REQUEST

105. Provide a discussion of the relative environmental advantages and disadvantages of wet, wet/dry, and dry cooling technologies. Include an evaluation of water demand,

particulate matter emissions, visual resource implications, and land use requirements associated with the use of the three cooling options.

A. Quantify air emissions from the project stacks and cooling towers, efficiency and capacity losses, and increased parasitic loads for the three cooling options under conditions of both constant and maximum fuel use.

B. Quantify the footprints and dimensions of the cooling towers for the three cooling options.

C. Quantify the occurrence and size of visible plumes and the noise levels for the three cooling options.

BACKGROUND

The Storm Water Pollution Prevention Plan – NPDES submitted as Appendix L3 in data adequacy response (4/13/00) does not include Unit 8. A storm water and erosion management plan which includes the Unit 8 facility, and any associated linear or other facilities, such as transmission lines, pipelines, lay-down areas, staging/storage areas, is needed.

DATA REQUEST

106. Provide a stormwater and erosion management plan for the facility and for any associated linear facilities, including transmission lines and pipelines. The plan should include any lay-down areas, borrow areas, access roads, construction, staging or storage areas associated with the project, and their estimated acreage. Include any increase in impervious surfaces and runoff volume, along with a discussion of BMPs and revegetation schemes to be used to manage stormwater and erosion both during construction and during operation. Discuss the capacity of the proposed stormwater system to handle the flows estimated to result from the project, and the impact of these flows on both the stormwater collection/treatment/discharge system, and on the properties of the stormwater discharge itself.

107. Include in the stormwater and erosion management plan a discussion and description of how this plan will address the contaminated soil to be excavated during construction, as discussed in the Waste Management Technical Area data requests. Specifically address how stormwater coming into contact with these contaminated materials will be collected, treated, and discharged.

BACKGROUND

The project's use of San Joaquin River water for cooling unit 8 could be impacted by the proposed use of 2 cycles of concentration in the cooling towers which will be used to cool the unit 8 blowdown prior to combining it with the once-through cooling water discharge from the existing units 6 and 7. The San Joaquin River is listed as an impaired water body under Clean Water Act Section 303(d) which does not meet ambient water quality standards for

several constituents, and it is unknown at this time how this status could impact a combined wastewater discharge.

The Central Valley Regional Water Quality Control Board (CVRWQCB) has received a Report of Waste Discharge (ROWD) for a renewal of the existing National Pollutant Discharge Elimination System (NPDES) permit for Units 6 and 7, which expires in October 2000. The applicant appears to have made a determination in the AFC that the addition of the Unit 8 discharge to that of Units 6 and 7 should not be considered a new discharge for NPDES permit purposes.

However, an NPDES application which combines the new Unit 8 discharge with that of Units 6, and 7 has not been provided to the CVRWQCB. The application for the current NPDES permit renewal does not include the addition of the Unit 8 discharge as part of any combined discharge. It is necessary for the CVRWQCB to determine if the combined units 6, 7, and 8 discharge is a new or existing discharge for NPDES permit purposes. Should the addition of unit 8 cause the discharge to be considered a new discharge, the project may have to comply with more stringent waste discharge limits.

Additional information is needed to evaluate potential impacts related to the 2 cycles of concentration proposed for the Unit 8 cooling water discharge on the combined Units 6, 7, and 8 discharge, which can no longer be considered a once-through cooling water discharge. It is not known at this time if the current exception to the thermal plan granted by the CVRWQCB for the existing NPDES permit will apply to the combined units 6, 7, and 8 discharge, which is of particular concern should the combined discharge be determined to be a new discharge.

DATA REQUEST

108. Provide a copy of the NPDES application/Report of Waste Discharge submitted to the RWQCB requesting a draft NPDES permit for the combined Unit 6, 7, and 8 project discharge as soon as it is available.

109. Provide a schedule which produces a draft NPDES permit for the combined Unit 6,7 and 8 project at least 30 days prior to the date scheduled for the Final Staff Assessment (FSA).

110. Expand Table 8.14-5 (April 14, 2000) to include the following constituents for which data are available in the data adequacy response Appendix L5 (4/13/00), existing self-monitoring data, or other historical monitoring results, i.e., Department of Water Resources, U.S. Geological Survey, U.S. Bureau of Reclamation, etc. Include the range, average, standard deviation, and source for these data.

antimony	calcium	chromium	**copper**
iron	lead	nickel	vanadium
zinc	arsenic	sodium	barium
boron	cadmium	**selenium**	manganese
silver	beryllium	cobalt	sulfide

chloride sulfate magnesium potassium
temperature (°F) total dissolved solids (TDS)
electrical conductivity

Analytes in bold are currently included in Table 8.14-5. Detection or reporting limits for metal and trace elements for new data should be comparable to those obtained using EPA Method 200.8, Inductively Coupled Plasma – Mass Spectroscopy.

111. Provide a copy of a will serve letter from the City of Antioch which states that they have available capacity and will supply the process water needed during periods when the San Joaquin River water quality is of poor quality. The letter should describe any conditions or requirements for this water to be provided to the project, and include any potable water supply needs.

112. Provide a copy of the PG&E Thermal Plume Study (PG&E 1992) for the existing project.

113. On an on-going basis, provide copies of all communications between the Contra Costa Unit 8 Project and the RWQCB, and copies of all materials either submitted to, or received from the RWQCB related to the project.

BACKGROUND

The water supply may also be affected to an extent unknown at this time by Endangered Species Act considerations. A draft Habitat Conservation Plan is currently under review, and applies jointly to both the Pittsburg and Contra Costa Power Plants. This HCP does not include the Unit 8 addition to the Contra Costa Power Plant or an evaluation of any additional impacts that it may contribute to species of concern and subject to the HCP.

DATA REQUEST

114. Provide a status report for the “California Endangered Species Act (CESA) Memorandum of Understanding (MOU) and Management Authorization by and between Pacific Gas and Electric Company and the California Department of Fish and Game (CDFG) and Draft Multispecies Habitat Conservation Plan for the Pittsburg and Contra Costa Power Plants” (August 10, 1998) provided as supplemental information to CEC data adequacy requests.

115. Provide a discussion regarding the operational requirements of Unit 8 as they relate to the HCP and when combined with units 6 and 7. Provide a schedule for a final HCP for the combined project.

BACKGROUND

Attached is a letter (see Attachment A) dated March 14, 2000 from the Department of Toxic Substances Control to the California Energy Commission which transmits DTSC comments on the Contra Costa Power Plant Unit 8 Project AFC, and specifically on the Phase II Environmental Assessment included in the AFC as Appendix K. Many of these comments are addressed in the Waste Management Technical Area data requests. However, several of these comments contained in item 1. b.) of this letter identify concerns regarding petroleum hydrocarbons and arsenic groundwater contamination at the site.

DATA REQUEST

116. Please respond to the DTSC comments regarding:

    A. The need to determine the vertical and lateral extent of the groundwater contamination, to identify potential source(s) of contamination, and to provide potential remedies prior to construction. A discussion of the capacity of the existing data to address these needs, and the identification of any additional data is needed.
    B. The recommendation to re-evaluate the construction methods requiring dewatering which may impact groundwater contamination. A discussion of alternative construction methods is needed.

117. Provide a discussion and detailed description of how this contaminated groundwater will be collected, treated, and discharged.

A more detailed discussion of the availability and use of reclaimed wastewater by the project is required.

118. Provide a discussion detailing the quantity of reclaimed water available to the project, the providers of this water, the quality of this water, options for delivering it to the project site, treatment requirements for use by the project, and any impacts to the supplier of the reclaimed water. Any requirements of the USBR necessary to account for return flows to Colorado River should also be detailed and referenced.